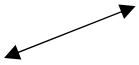
Homework 5.7 #1-3 p. 319

1. The **vertical intercept** represents the value of the **dependent variable** (usually y) when the independent variable (usually x) is 0. (In a given context, this is often the initial value).

The **horizontal intercept** represents the value of the in**dependent variable** (usually x) when the independent variable (usually y) is 0. (In a given context, this is often the end value).

For example, on the graph in 4b (p. 319), the vertical intercept is 100 km – the distance from the destination at the start of the journey. The horizontal intercept is 4h – the time taken to reach the destination (or when the distance from the destination is 0 km).

2. When the graph of the linear function goes **up** to the right, the rate of change is **positive**. 

When the graph of the linear function goes **down** to the right, the rate of change is **negative**. 

3. The **rate of change of a linear function is constant**. So the rate of change will be the **same**, *no matter which two points I use* to calculate it.